

Hazardous Waste Management Commission Report

Quarterly Report

July through September 2008



Missouri
Department of
Natural Resources

Kinder Morgan Pipeline rupture of petroleum in Montgomery County.

Hazardous Waste Management Commissioners

Patrick M. Gleason, Chair

Andrew Bracker, Vice-Chair

Ben Kessler

James T. "Jamie" Frakes

Elizabeth Aull

Hanford Gross

Sharon Oetting

"The goal of the Hazardous Waste Program is to protect human health and the environment from threats posed by hazardous waste."

For more information

Missouri Department of Natural Resources

Hazardous Waste Program

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Missouri Department of Natural Resources

September 2008 Program Update

Two new commissioners joined the Hazardous Waste Management Commission in the third quarter, and I speak for the program as I once again welcome them. Both Commissioner Sharon Oetting and Commissioner Hanford Gross have remarkable resumes and will bring their own perspectives to the commission, while ultimately keeping Missouri's environmental future as the base for their decisions.

With the coming of new commissioners, that means we said goodbye to some commissioners who have served on the Hazardous Waste Management Commission. Again, let me thank Timothy Warren and Susan Williamson on behalf of the department for their service to the Commission and to the state of Missouri.

With the third quarter come and gone, the department is one step further along in the rulemaking processes for the Missouri Risk-Based Corrective Action rules, both departmental and for petroleum storage tank sites. The department held a well-attended MRBCA workshop and, most recently, posted the Regulatory Impact Reports for both rulemaking efforts on the program's Web site and in newspapers across Missouri. Staff here have dedicated many hours to ensuring the rules will be a positive step in effectively managing contaminated sites in Missouri.

Another rulemaking effort, Senate Bill 720 – also known as the e-cycle bill – has also progressed satisfactorily. Staff have hosted stakeholder meetings and have asked for input from computer manufacturers, recyclers and other interested parties to help make the finished rule a benefit to Missourians.

The Budget and Planning section, one of the less publicized but most important sections of the Hazardous Waste Program explains some aspects of funding for the program in this report. Our goal as a program is to protect human health and the environment from threats posed from hazardous waste – something we simply can not do without adequate resources.

One of the issues the Compliance and Enforcement Section explains in this report is their Underground Storage Tank Compliance and Enforcement Unit. The unit is in their second year of a composite inspection program, which has led to improved communications with tank owners, operators and consultants. The Compliance and Enforcement Section continues its efforts to inform the public through their ListServ, phone contacts, fact sheets and correspondence.

In Superfund, an approach known as in-situ land farming has proven to be a cost-effective approach to dealing with wood treatment waste. The process involves working with the landowner to lower soil contamination levels in a successful, yet economical, manner.

In the Hazardous Waste Program, we are always evaluating and brainstorming for different, yet effective, solutions that can help ease the burden of remediation on the landowner and, most importantly, the taxpayer.

This issue marks the end of a full year of our staff producing these quarterly reports. Our hope is these reports are found to be informative, timely and useful. I feel these reports have continually improved, and remain confident they will retain this progression.

Sincerely,



Robert Geller, Director
Hazardous Waste Program

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Update on the Missouri Risk-Based Corrective Action Rules

The Hazardous Waste Program continued moving forward on the Missouri Risk-Based Corrective Action rulemaking processes throughout the third quarter of 2008. Staff fine tuned the draft rule language for both the departmental and tanks risk-based processes, while keeping stakeholders informed through a variety of outlets, including Web sites, e-mails, news releases and a Missouri Risk-Based Corrective Action workshop. The workshop was used by the department as a forum to educate the public and regulated community on the status of the rulemaking process and the details of the draft Risk-Based Corrective Action rules.

The department's draft rules allow sites contaminated with hazardous waste or petroleum to be addressed through a risk-based corrective action process. The departmental and tanks risk-based corrective action processes determine if, and to what extent, cleanup and long-term stewardship are needed at a polluted site. Both risk-based processes link the need for cleanup to the site-specific risk pollution poses to human health and the environment.

The workshop provided historical background information on the risk-based process, guidance development and application, the rulemaking process and the content and structure of the draft rules. This workshop was also held to accept informal comments on the rules, in order to help the department propose a better rule in advance of the formal process with the Secretary of State. More than 50 people attended the workshop including members of the Petroleum Storage Tank Insurance Fund, the Missouri Petroleum Marketers and Convenience Store Association, the Environmental Protection Agency, environmental consultants and contractors and various members of the regulated community.

The workshop is the department's latest step in a lengthy process to create Risk-Based Corrective Action rules. Since 1999, the department has worked with stakeholders to develop the rules and the accompanying guidance to put risk-based decision-making into practice in Missouri. Both rulemaking processes will be entering into the formal public comment period in late 2008 or early 2009, with the rules being finalized in late 2009.

Along with sharing the schedule, structure and contents of the draft Risk-Based Corrective Action rules, department staff went through the revised Tanks Risk-Based Corrective Action guidance document and explained the reasoning behind major changes to the guidance.

No major opposition to the department's proposals was expressed by workshop participants.

Hanford Gross Chosen As New Hazardous Waste Management Commissioner

Besides raising a family and running a business, new Hazardous Waste Management Commissioner Hanford Gross has consistently found time to give back to his community. He has served at both the local and national level, on groups that include the Jewish Education Service of North America and the St. Louis Chapter National Environmental Balancing Bureau as chairman.

Gross was appointed on Aug. 20 to the Hazardous Waste Management Commission.

Besides being active in the community, Gross is the president of Gross Mechanical Contractors, an industrial construction contractor specializing in the power and process industries. He is also an adjunct professor of mechanical engineering at Washington University, St. Louis.

He received many awards and honors, including the Jewish Federation of St. Louis David N. Grosberg Young Leadership Award and was selected for Wexner Heritage Foundation Class. Gross has also been scoutmaster of a Boy Scout troop.

"With his education and engineering background, I look forward to what Commissioner Gross will bring to the Hazardous Waste Management Commission," said Hazardous Waste Program Director Robert Geller. "Commissioner Gross has made a habit of serving in capacities that benefitted Missouri and beyond; I think he'll be a good fit."

Gross's term limit expires in April 2012, and will represent the public interest.

Sharon Oetting Chosen As New Hazardous Waste Management Commissioner

It is fitting that Sharon Oetting represents the Agriculture Industry on the Hazardous Waste Management Commission. She is the part owner and manager of Oetting Hog Farms Inc., a farrow-to-finish farm that markets approximately 2,400 hogs per year on land that includes acreage originally homesteaded by the Oetting family in 1839. Besides raising hogs, nearly 700 acres of the farmland, located just outside of Concordia, is used for growing crops.

Oetting Gross was appointed on Aug. 20 to the Hazardous Waste Management Commission.

Oetting has received many awards and recognition, including the Missouri Pork Producers Woman of the Year award and, most recently, Oetting Farms was one of four pork producers in the nation to receive the 2008 Pork Industry Environmental Steward Award.

The Oetting farm is operated by Sharon and her husband Steve. She was selected for the award due to the many environmental practices implemented on their land. Additionally, Oetting Hog Farms Inc. participates in many conservation programs, such as Environmental Quality Incentives Program, Conservation Security Program and Conservation Reserve Program.

"With her agriculture background and continued commitment to the environment, Commissioner Oetting will be an excellent addition to the Hazardous Waste Management Commission," said Hazardous Waste Program Director Robert Geller, "I look forward to working with her."

Missouri Department of Natural Resources - Hazardous Waste Program

Budget and Planning Section

Hazardous Waste Grant Funding Chart

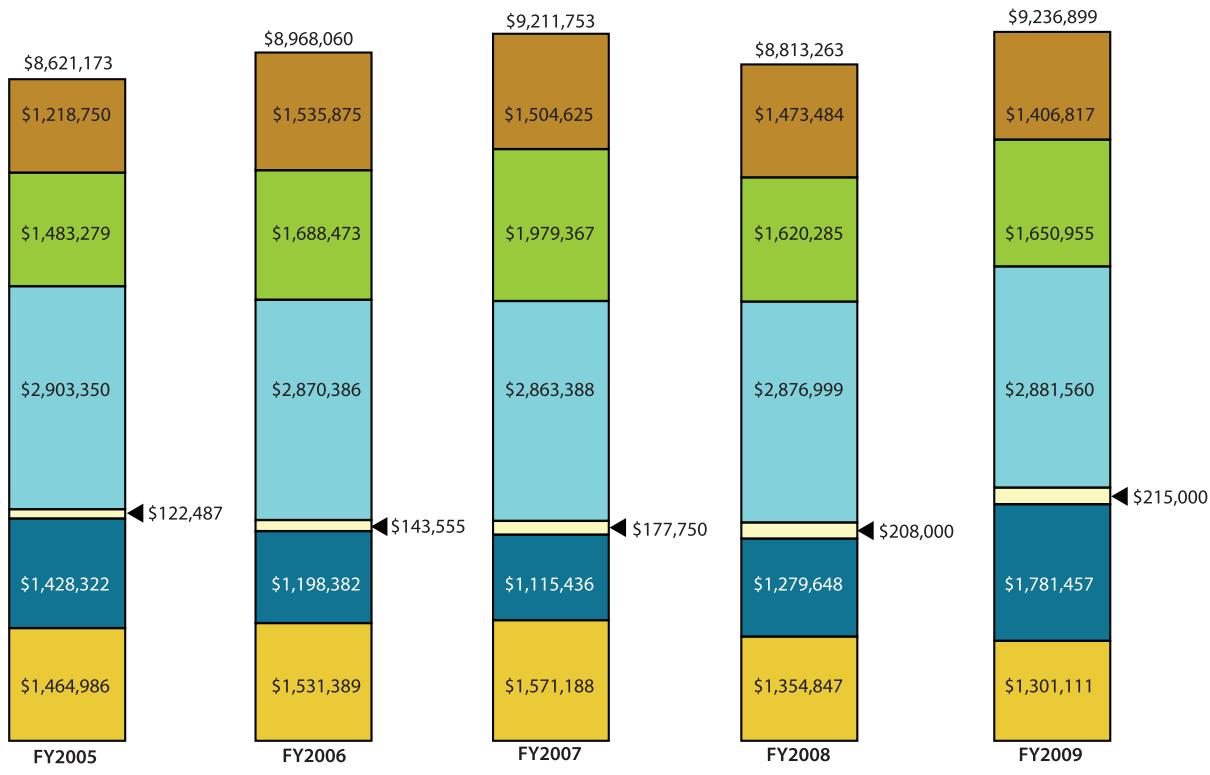
The Hazardous Waste Program Budget and Planning Section manages funding for a variety of federal grant activities (performed in the program, elsewhere in the department and in other state agencies). Included are agreements to fund the regulation of Resource Conservation and Recovery Act, or RCRA, facilities and Toxic Substance Control Act, or TSCA, facilities. Agreements also include remediation oversight at Superfund, Brownfields and Underground Petroleum Storage Tank sites as well as property currently or previously owned by the federal government.

Funding for several federal programs has remained relatively stagnant or has declined over the years. Most of these decreases have occurred, not because the amount of work has declined, but rather due to a lack of available federal appropriations.

Although total funding for Superfund activities in State Fiscal Years 2006 and 2007 increased, this was primarily due to work on a site-specific agreement with large contractual costs. Funding for the Superfund base program actually remained flat or declined each year during this time. Base funding for the Brownfields grant program has also remained relatively flat, but as with the Superfund program, the state has acquired additional funding that has been used to pay contractual costs.

The federal Tanks program has seen moderate increases in funding primarily tied to additional requirements associated with passage of the Energy Policy Act of 2005. This new federal law places greater focus on the prevention of petroleum releases and increases the allowable usage of the Federal Leaking Underground Storage Tank Trust Fund.

**Hazardous Waste Grant Funding
Fiscal Years 2005-2009**



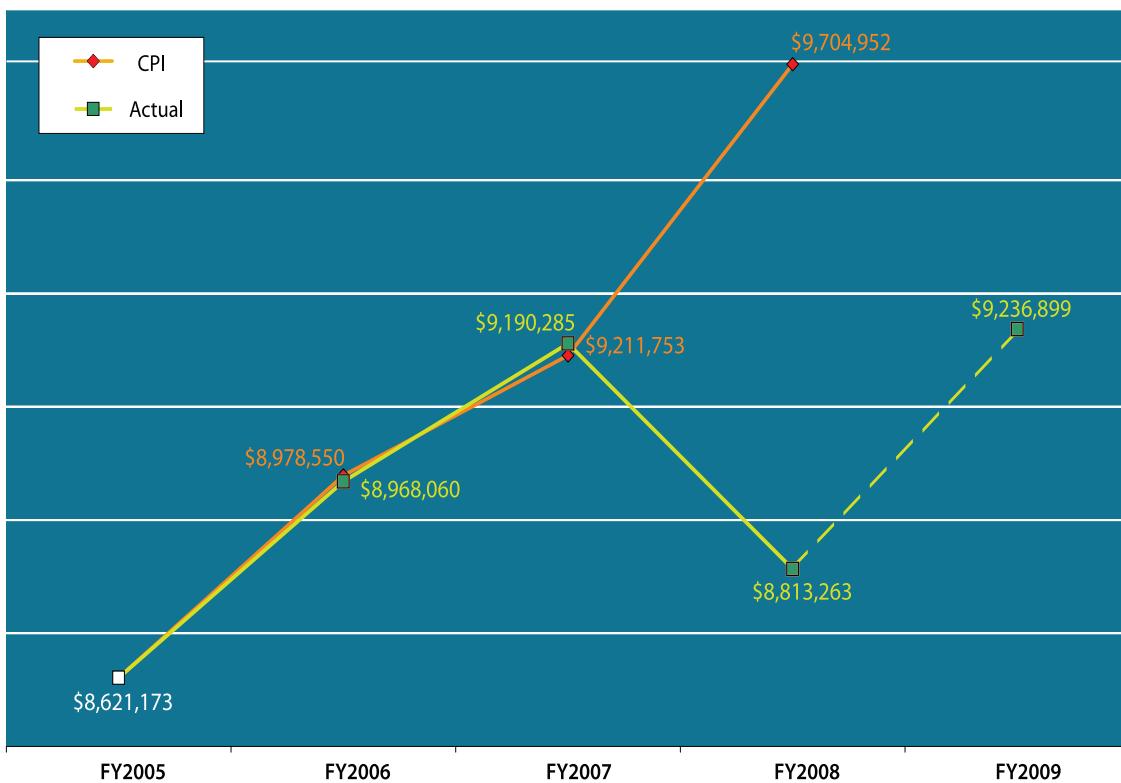
■ Superfund ■ Tanks ■ TSCA ■ RCRA ■ Federal Facilities ■ Brownfields

Hazardous Waste Grant Funding vs. the Consumer Price Index

Total federal hazardous waste grant awards in Missouri increased from \$8.6 million in fiscal year 2005 to \$9.2 million in 2007, staying relatively close to changes in the Consumer Price Index. Most of these increases were for third-party contractual costs rather than to maintain base programs.

In fiscal year 2008 total federal grant dollars received dropped to \$8.8 million. Had total awards increased with the index, the amount would have actually increased to \$9.7 million. Although this downward trend is expected to reverse itself somewhat in state fiscal year 2009, it is anticipated that federal funding for hazardous waste activities will continue to lag behind the rate of inflation. This will cause the actual purchasing power of these grant dollars to further erode.

Hazardous Waste Grant Funding vs. Consumer Price Index by Fiscal Year



Sites in Brownfields/Voluntary Cleanup

	Active	Completed	Total
July	367	379	746
August	367	381	748
September	366	386	752

New Sites Received

July

West Meadows - Site 1, Springfield
Union Station Power House Building, Kansas City
Locust Station, St. Louis
Peterson Manufacturing Company, Kansas City
Richmond Center, St. Louis
Brock Grain Systems, Kansas City
Lincoln Industrial Corp., St. Louis
Grand Boulevard Lofts, Kansas City
Highland Terrace, O'Fallon
Independence Regional Entrepreneurial Center,
Independence

August

Beacon Hill Redevelopment Project, Kansas City
TEPPCO Cape Girardeau Terminal, Scott City
Roto-Die Company Inc., Kirkwood

September

Riley Properties, Oak Grove
Century Foundry, St. Louis
F. Christen & Sons (former), St. Louis
Powell Square, St. Louis
Input Technologies, St. Louis
Gardner Property, St. Louis

Sites Closed

July

St. Louis Port Authority Industrial
Complex - Area 2, Lemay
St. Louis Port Authority Industrial
Complex - Area 3, Lemay
McPherson Ave/Rothschild Development,
St. Louis

August

QuikTrip 648, St. Louis
The Garage Redevelopment, St. Louis

September

Southside National Bank, St. Louis
Laclede Gas Station G - Lot A, St. Louis
Laclede Gas Station G - Lot C1, St. Louis
Port Arrowhead Marina, Osage Beach
Cargill Tier I Properties, Kansas City

St. Louis County Port Authority Cleanup Completed

National Lead, known today as NL Industries, began operations on the Mississippi riverfront in Lemay, south of St. Louis, in 1915. Over the years NL Industries acquired a total of 80 acres for its paint pigment manufacturing operations. The plant had problems complying with air and water pollution regulations in the 1970s, and finally closed in 1981 when NL Industries decided compliance was prohibitively expensive. Buildings were demolished and the site was abandoned.

The St. Louis County Economic Council and the St. Louis County Port Authority enrolled the site into the Brownfields/Voluntary Cleanup Program in 1998 as part of a long-term plan to redevelop this large riverfront property. Investigations showed that lead is not actually a problem at the site. However, there was contamination from other pigments handled by the plant such as titanium, and from the large petroleum storage tanks, Polychlorinated Biphenyls, or PCBs, and asbestos.

The central third of the site, the 21.5-acre parcel dubbed Area 1, had relatively few environmental problems and contained mostly warehouses. St. Louis County Economic Council and St. Louis County Port Authority cleaned up PCB contamination and performed asbestos abatement on Area 1, and placed restrictive covenants on the property for future management of residual contamination. In 2003, the department issued a Certificate of Completion letter for the central portion of the site.

The remedial actions for Areas 2 and 3 at the property involved the following:

- Management of impacted soils, consisting of a combination of excavation and disposal and on-site reuse.
- Crushing and recycling of concrete on-site.
- Groundwater monitoring.
- Use of imported materials from various sources (quarries, other redevelopment projects).
- Asbestos-containing material investigations and removal.
- Wetland closures.

More than 16,000 tons of contaminated materials were excavated and properly disposed off-site. Over 1 million tons of materials were imported and used on-site as a clean cap, remediation excavation backfill and for general redevelopment purposes. Thirty-three 55-gallon drums of waste was also properly disposed off-site as non-hazardous and non-regulated waste due to the investigation. All known areas of soil contamination identified during the environmental investigations have been addressed and meet remedial objectives.

8200 South Broadway Property National Geospatial-Intelligence Agency (NGA)



The site is being redeveloped as a casino and entertainment complex. The plan would also create an amphitheater for outdoor venues. The Great Rivers Greenway Trail is projected to pass through Area 2 and Area 3 along the River des Peres and the Mississippi riverbanks. The project received brownfield remediation tax credits for the demolition of buildings, remediation of soil and the creation of new jobs. The department's Brownfields/Voluntary Cleanup Program has issued a Certificate of Completion for St. Louis Port Authority (old National Lead) site in St. Louis.

The total number of sites cleaned-up under Brownfields/Voluntary Cleanup Program program is 386.

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant.

Through the voluntary cleanup program, private parties agree to clean up a contaminated site and are offered some protection from future state and federal enforcement action at the site, in the form of a No Further Action letter or Certificate of Completion, from the state.

Drycleaning Environmental Response Trust Fund

	Active	Completed	Total
July	23	3	26
August	23	3	26
September	23	3	26

New Sites Received

No new sites this quarter

Sites Closed

July

Colonial Cleaners (Brentwood Blvd), Brentwood

Compliance and Enforcement Section**From July through September, Regional Office Employees:**

- Conducted 114 hazardous waste generator inspections:
 - 11 at large quantity generators.
 - 62 at small quantity generators.
 - 41 at conditionally exempt small quantity generators.
- Sent 24 Letters of Warning and two Notices of Violation to require actions to correct violations.
- Made 132 Environmental Assistance Visits to hazardous waste facilities.

From July through September, Compliance and Enforcement Section Inspectors

- Conducted two inspections of non-commercial treatment/storage/disposal facilities.
- Conducted 68 inspections of commercial treatment/storage/disposal facilities.

From July through September, the two PCB inspectors:

- Conducted 25 compliance inspections at various types of facilities throughout the state. The reports are forwarded to EPA, which has authority for taking any enforcement action, according to the Toxic Substances Control Act.

From July through September, the hazardous waste transporter inspector:

- Conducted 12 commercial vehicle inspections during which one vehicle was placed out of service. As part of the Commercial Vehicle Safety Association's protocol, the department sends the reports to the Missouri Highway Patrol. When the transporter corrects the violations, he or she certifies to the Patrol that violations were corrected.

As of September, there are 219 licensed hazardous waste transporters in Missouri.

Greenleaf, LLC, Neosho and Pineville

During July and August, the department oversaw a pesticide cleanup at two Greenleaf facilities.

Approximately 73,272 pounds of hazardous waste was shipped from both the Neosho and Pineville locations this summer. This represents an enormous reduction in the potential for citizens' exposure to hazardous waste and hazardous waste releases to the environment. Greenleaf LLC was first inspected in December 2007 by the department.

Follow-up inspections by the department made it clear that Greenleaf LLC was not being operated and maintained to minimize the possibility of an emergency. Hazardous

Before and After

Greenleaf LLC in Neosho, Building 1, January 2008



Greenleaf LLC in Neosho, Building 1, August 2008



Greenleaf LLC in Neosho, Building 3, January 2008



Greenleaf LLC in Neosho, Building 3, August 2008

waste was not in proper containers, had been spilled in many locations, and employees were routinely exposed to the waste. Because of the serious nature of the violations, the department required and oversaw the proper cleanup and disposal of both sites.

New Listserv Postings

The Enforcement and Compliance Assistance Listserv for Hazardous Waste Generators is distributed by e-mail to those interested in receiving information and updates about environmental compliance for the Missouri Department of Natural Resources. From July through September, the listserv discussed hazardous waste reporting, labeling and marking containers, used oil space heaters and avoiding incompatibility dangers. Subscribe to the listserv on the department's Web site at www.dnr.mo.gov/env/subscribe_ecahwg.htm.

E-Scrap Update

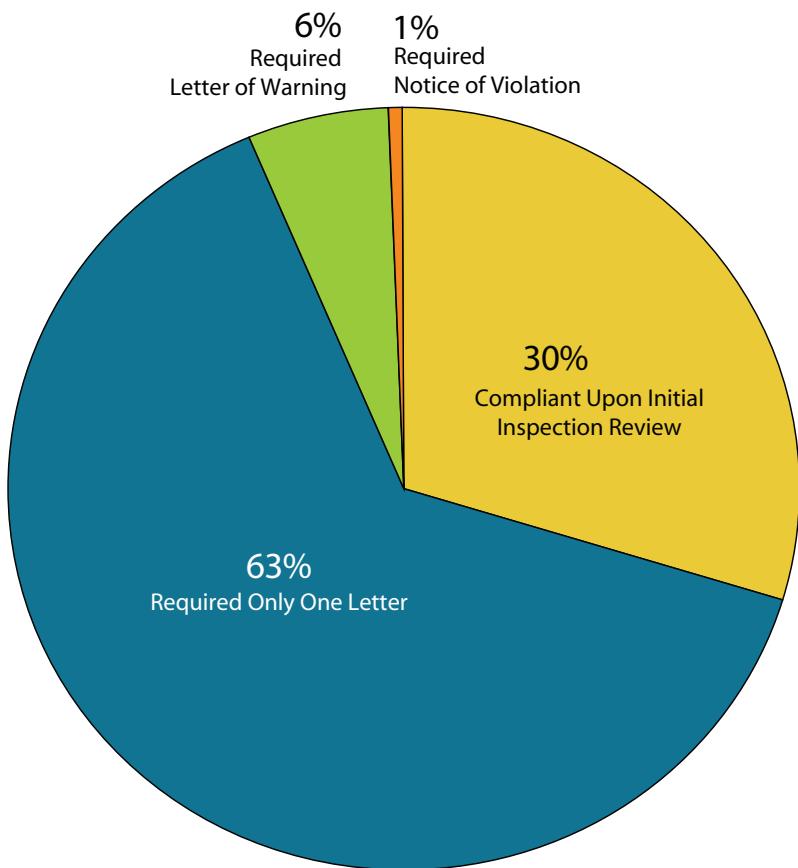
The department is beginning the formal rulemaking process to implement provisions in Senate Bill 720, part of which is also known as the Manufacturer Responsibility and Consumer Convenience Equipment Collection and Recovery Act. The legislature passed the bill in its 2008 legislative session and it was signed into law. The full text of Senate Bill 720 can be found on the Web at www.senate.mo.gov/08info/pdf-bill/tat/SB720.pdf.

Senate Bill 720 states that computer manufacturers who sell their products in Missouri must have a recovery plan that specifies how computers and computer accessories will be collected and recycled or reused. The bill assigned many duties to electronics manufacturers, retailers and the department, one of which is that the department must publish rules by July 1, 2009. The department is asking for input and assistance from computer recyclers, retailers, manufacturers, local governments and consumers. On Oct. 2, the department hosted the first E-Scrap Recycling Rulemaking Workshop, which was attended by over 40 stakeholders.

Underground Storage Tank Compliance and Enforcement Update

The department's Underground Storage Tank Compliance and Enforcement Unit is now working on the second year of its composite inspection program. Department staff make compliance determinations based upon on-site inspections conducted by department inspectors and contract inspectors, records reviews and any other available information. The department and the Petroleum Storage Tank Insurance Fund continue to share operational compliance records. By using records submitted at the annual Petroleum Storage Tank Insurance Fund policy renewal, this new program has made it easier for underground storage tank owners and operators to demonstrate compliance. During our first year, the Tanks Compliance and Enforcement Unit conducted or reviewed over 1,300 inspections, including contracted inspections. The department's Inspection Review Team sent a letter to each site reviewed. The letter acknowledged the facility's compliance or contained details about outstanding violations and how they might be corrected.

The new structure of the inspection program has led to improved communications with tank owners, operators and consultants. This increased awareness of operational requirements is reflected in the high number of underground storage tank facilities in compliance with the Missouri underground storage tank law and regulations. The chart below illustrates the high response activities from owners to demonstrate compliance. Most facilities were either in compliance at the initial inspection review or demonstrated compliance after receiving an initial inspection findings letter.

Compliance at Operational UST Facilities

Department of Energy – Kansas City Plant, Kansas City

The Kansas City Star reported on July 21 that a “Bid Bust” was threatening progress on the construction of a new Department of Energy Kansas City Plant south of the current facility located at the Bannister Federal Complex in Kansas City. General Service Administration, or GSA, officials had planned to select a construction contractor for the new Kansas City Plant facility on Aug. 21. However, all bids came in above the congressionally approved spending limits for the project. GSA officials blamed the situation in part on recent inflation in the construction business, increased fuel costs and general uncertainties in the credit market.

As a result, GSA has canceled the current bidding solicitation process and will revise the building design and requirements before putting out a new proposal for bids, anticipated to be sometime in November or December. The new proposal process resulted in a delay in awarding the lease from August to late in the year. It may set the construction schedule back nearly five months, originally estimated to be completed in 2012. If a second bidding process fails, the construction of the new plant could be canceled and the plant could be moved from Missouri, threatening over 2,000 jobs.

Formerly Utilized Sites Remedial Action Program North County Sites, St. Louis Recent Progress and Rain Events at North St. Louis County

The U.S. Army Corps of Engineers is making significant progress on the Formerly Utilized Sites Remedial Action Program, or FUSRAP, in north St. Louis County areas. Excavation and rail shipping of FUSRAP material continues at the Hazelwood Interim Storage Site and vicinity properties along Latty Ave. This includes the remediation of eight underground storage tanks at the Futura vicinity property site. In addition, several remedial activities are taking place along major roads, including McDonnell Blvd., where safety of workers and storm water controls are primary focuses.

During recent rain events in the St. Louis area, an excavation, located between Banshee Road and Lambert-St. Louis International Airport was filled and overtopped with storm water. The Corps removed the water from Banshee Road and tested the road surface for contaminants. The storm water was impacted with trace amounts of Thorium. Corrective measures were immediately taken to address the surface runoff. Due to potential significant rain events, the department's employees continue to monitor the storm water controls that may be present during the planning phase and site management practices.

West Lake Landfill, St. Louis

EPA signed the Record of Decision and released the Responsiveness Summary for Operable Unit 1 for the West Lake Landfill on May 29. Operable Unit 1 contains the radiologically impacted areas of the landfill as well as other hazardous waste constituents. The Operable Unit 2 Record of Decision was signed on July 25 and addresses the remaining non-radiological former municipal landfill areas. The selected remedies for both operable units are capping in place with institutional controls and long-term monitoring.

EPA started negotiations with the potentially responsible parties for Operable Unit 1 to begin work on the remedial design prior to issuance of a Consent Decree. This will take place under an amendment to the existing Administrative Order on Consent. EPA can allow remedial design work under an administrative order but remedial action work must be done under a Consent Decree lodged with the court. Because of this, work can begin on the design but actual placement of the engineered cap will take place after the consent decree is approved by the Department of Justice. EPA has targeted issuance of the decree to the Department of Justice by Sept. 30.

Missouri Department of Natural Resources - Hazardous Waste Program Federal Facilities Section

Department Partners with the National Guard Bureau To Cleanup and Close Sites at Jefferson Barracks

On September 12, 2008 the Missouri Department of Natural Resources, in conjunction with a Jefferson Barracks Community Council meeting, recognized National Guard Bureau staff for the cleanup and closure of four sites under their Environmental Restoration Program. The Environmental Restoration Program was established to identify, assess, investigate, and clean up existing contamination on bases throughout the United States. The council is a group of stakeholders who are interested in preserving and expanding the role of Jefferson Barracks in the St. Louis community.

At the council meeting, the department highlighted some of the history and major accomplishments that took place under the Environmental Restoration Program. This is the first closure of an environmental program under the Department of Defense and State Memorandum of Agreement in Missouri. The goal of the agreement is to expedite environmental restoration at the Department of Defense installations through partnerships with States. These partnerships are fostered through



Ruben Zamarripa presented the Adjutant General with a certificate of the Department's appreciation.



Arthur Schuermann, (left) Environmental Manager for Jefferson Barracks, and Major General King Sidwell (third from left) received recognition from the Department of Natural Resources. Federal Facilities Section Chief, Aaron Schmidt and Ramona Huckstep, the facilities Project Manager presented the awards.

improved communication, coordination, and cooperation between States and the Department of Defense in order to protect human health and the environment through environmental restoration at Department of Defense installations in an expeditious and efficient manner in compliance with applicable State and Federal laws and regulations.

The four cleanup sites included: a waste oil disposal area; a drainage ditch which was near an area used for vehicle inspections and maintenance; a concrete ramp where oil changes took place; and a storage area, which was used for vehicle maintenance.

This historic achievement was a success because of the working relationship between the department and the National Guard Bureau. Arthur Schuermann, Environmental Manager for Jefferson Barracks, and Major General King Sidwell, Adjutant General for the State of Missouri, received certificates of appreciation from the department for their cooperative efforts in making these sites protective of human health and the environment.

There are additional hazardous waste sites at Jefferson Barracks that the department is working on with the National Guard Bureau. These include a post dumping ground site that has been covered with large rocks to prevent people from coming into contact with any contamination and a site with potential munitions present from historical practices.

Jefferson Barracks Dumping Grounds, Lemay

Historically, through the early portion of the 20th century, Jefferson Barracks used the western bank of the Mississippi River as a dumping ground. Periodic flooding would wash away all but the heaviest debris disposed of at the dumping grounds. In recent years this area became a popular recreation area for picnickers, anglers and souvenir hunters. During low river events, occasionally, live pre-World War I and World War I ordnance would be exposed. In an effort to sequester this potential hazard the U. S. Army Corps of Engineers, with the Missouri Department of Natural Resources concurrence, covered the area with a four foot thick blanket of rip-rap (large quarried stone).

The St. Louis Metropolitan Sewer District is in the process of upgrading their infrastructure, which requires that they install a new 52-inch sewer line through a portion of the rip-rapped dumping grounds. The sewer district has hired JH Berra Construction Company to excavate a trench approximately 20-feet wide and 134-feet long. This work started on Sept. 30, 2008.

The entire project is scheduled to take four to five weeks to complete.

The upcoming sewer district activities are in compliance with both State and Federal statutes and regulations. In addition, a US Army Corps of Engineers ordnance expert is required to be present during all excavation activities. The department will also be in attendance during the excavation phase of the project to provide regulatory oversight under the Defense States Memorandum of Agreement. Potential hazards associated with the sewer district's activities are normal excavation hazards, as well as, the potential explosives hazard associated with unexploded ordnance that may be present under the rip rap. The sewer district will stop their activities if hazardous materials are encountered.

Missouri Department of Natural Resources - Hazardous Waste Program Federal Facilities Section

Lake City Army Ammunition Plant, Independence

Remediation started at Lake City Army Ammunition Plant Area 10 Sand Piles. The plant's firing range is the last area to be addressed by the Army. The sand piles are contaminated with lead and depleted uranium from bullets. EPA, the Nuclear Regulatory Commission and the department are providing oversight of the remediation work in Area 10.

The field work started in August and the Army will complete a non-time critical removal action by Dec. 31. For the safety of the workers, the work is being completed at night since the area is near an active bullet testing range. In order to meet deadlines, the remediation may be done on weekends as well. The last Record of Decision regarding this site will be completed in 2009.

To date, about 4,000 tons of treated non-radioactive waste have been loaded and shipped to Johnson County Landfill. Approximately 180 drums (6.8 tons) of non-radioactive materials, including unexploded ordnance, have been delivered to an on-site incinerator for treatment. All radioactive wastes are being staged until the completion of excavation activities. These will then be shipped out of state to a licensed facility for disposal. The remediation is generating significantly more unexploded ordnance than predicted. The Army is exploring possible alternative means for addressing this material.



20 Tons Unexploded Ordnance to Incinerator



500 tons of oversized material to sort.

Getting Involved...

The department's overall goal is to protect human health and the environment. In addition to reviewing technical information, the Permits Section facilitates and encourages public participation during the hazardous waste permitting and corrective action processes. Specific public participation requirements for steps in the hazardous waste permitting and corrective action process are outlined in the state's hazardous waste law and regulations and the federal Resource Conservation and Recovery Act and corresponding federal regulations.

Public participation is an important tool that can help the section reach better technical solutions, improve the quality of the facility's decisions about protection of human health and the environment and address environmental justice concerns. The public participation process allows the public to stay informed, voice concerns, offer suggestions and have an active role in the department's decision-making processes.

The Permitting Process

Missouri's hazardous waste regulations require prospective operating hazardous waste treatment, storage and disposal facilities to hold a public meeting before they submit a permit application. A facility must hold a public meeting before they submit the permit renewal application requesting a significant change, equivalent to a Class 3 permit modification, in facility operations. This requirement does not apply to applications submitted for the sole purpose of conducting post-closure or corrective action at a facility.

All facilities seeking a hazardous waste permit are required to maintain a mailing list. The mailing list is one method by which interested parties receive permit-related information and are informed of opportunities for involvement in public participation activities. Anyone may call or write to the facility or our section at any time to request to have his or her name added to a facility's mailing list.

There are several times during the permitting process that require public participation activities:

1. Complete permit application received.
2. Draft permit issuance/reissuance.
3. Final permit issuance/reissuance.

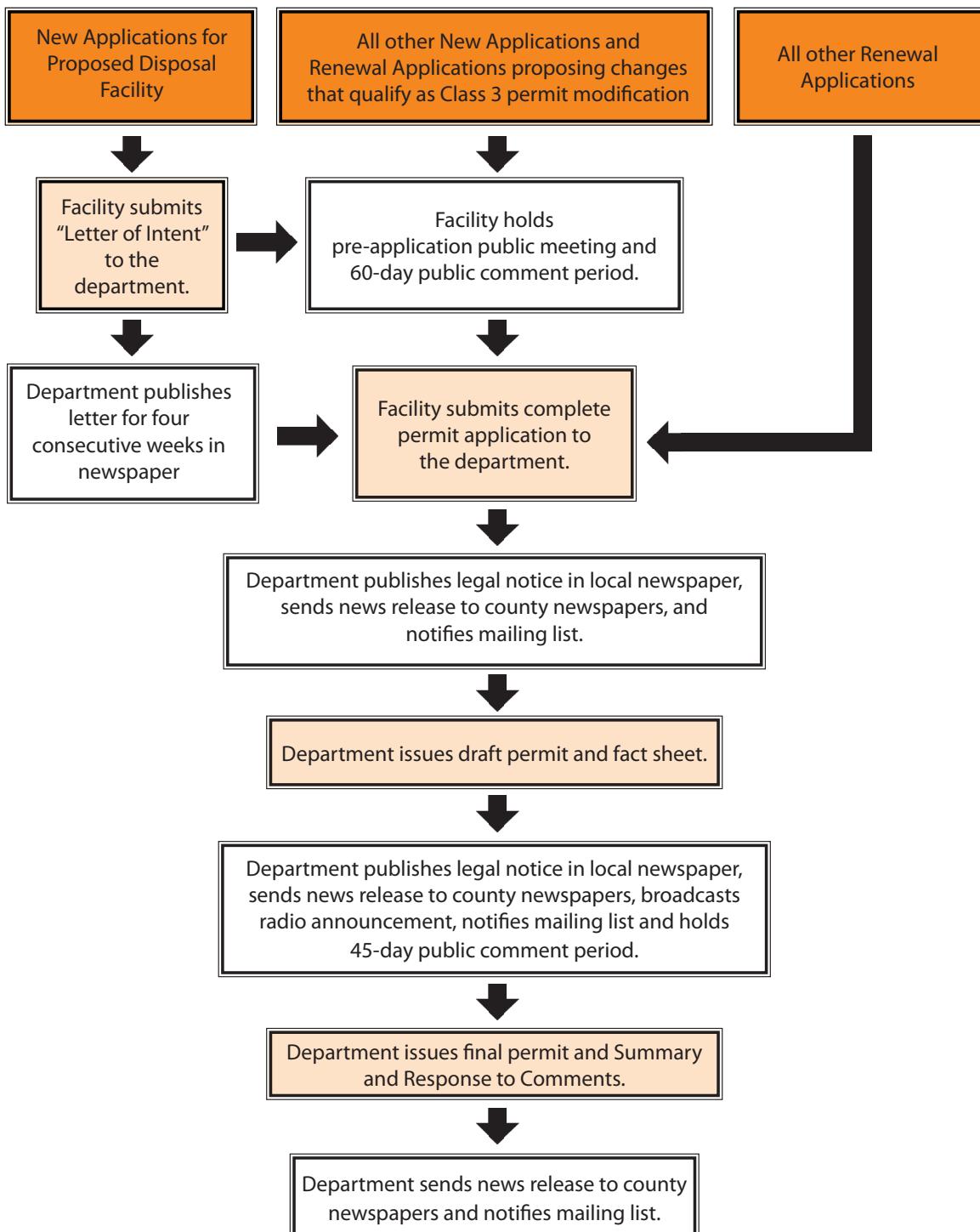
The department is required to notify the public of these activities through the facility's mailing list, newspaper legal notices, radio announcements and news releases, depending on the activity.

The department makes the permit application, draft permit, final permit and supporting documents available for the public to review, usually at a public library near the facility.

The department holds a 45-day public comment period on draft permits. During this time, the public is invited to review the draft permit and send written comments. A public hearing is held during the comment period, if requested by the public. The department may also hold a public hearing, meeting, or availability session during the public comment period at its own discretion, even if the public does not request one. At the end of the public comment period, written comments and any comments made at the public hearing, if one was held, are reviewed.

A Summary and a Response to Comments are prepared, listing all the comments made on the draft permit and how the department addressed each comment. The Summary, Response to Comments and final permit are then made available to the public.

Public Participation during the Permitting Process



Public Participation During the Life of a Facility Permit

The Permits Section, the permitted facility or the permittee, can make changes throughout the life of the hazardous waste permit. Public participation is a component of the initial permitting process and the permit modification process. Public participation responsibilities and activities in the permit modification process vary, depending on who initiates the modification and how much the conditions in the original permit are expected to change. Permittee-initiated modifications are categorized as Class 1, 2 or 3, depending on how much they change the original permit conditions. Specific changes and their corresponding modification class are available in 40 CFR 270.42, as incorporated by reference in the state hazardous waste regulations.

The permittee is responsible for conducting many of the public participation activities for permit modifications that he or she proposes. Class 1 permit modifications usually include small changes that keep the permit current with routine changes to the facility or its operation. Some Class 1 permit modifications are self-implementing while others require review and approval by the department prior to implementation. There is no public comment period for Class 1 permit modifications. However, the permittee is required to notify their mailing list within 90 days of the modification taking effect.

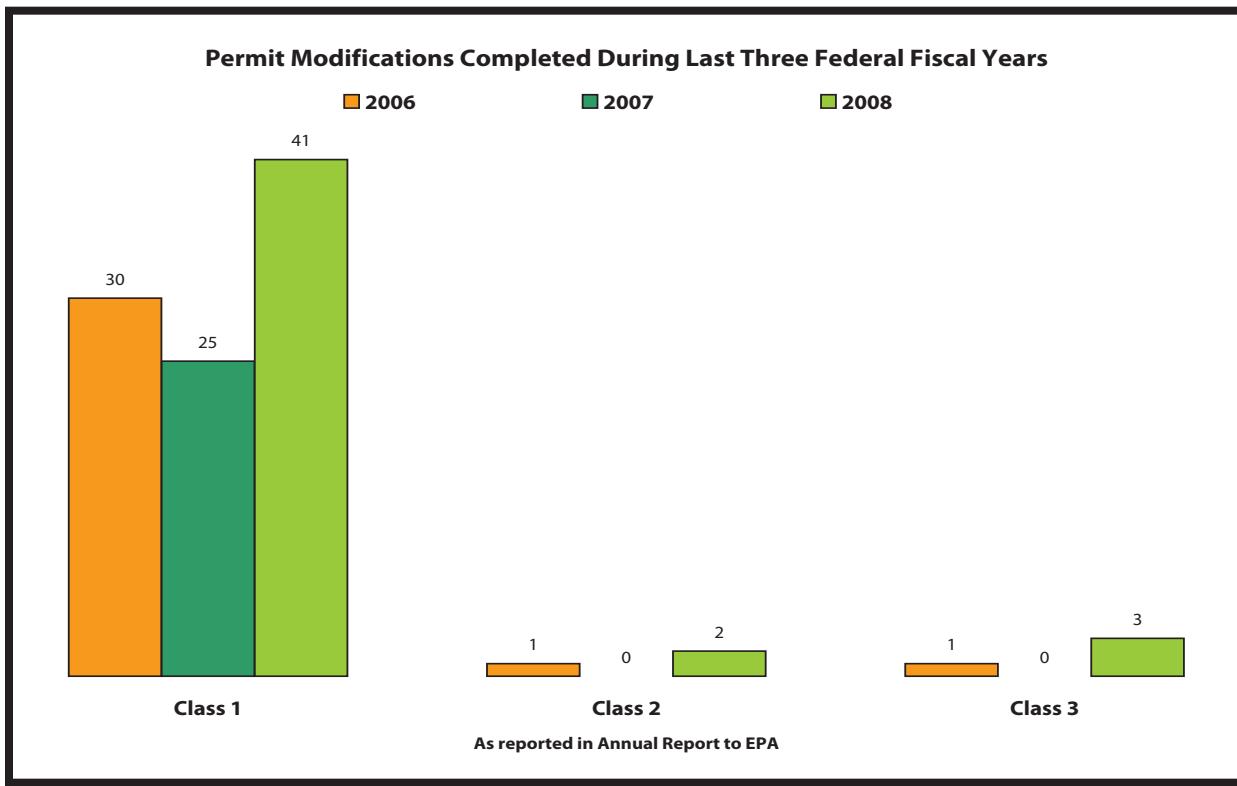
Class 2 permit modifications are usually more significant changes to the permits. The permittee is required to hold a 60-day public comment period and public meeting on proposed Class 2 permit modifications. The permittee must notify the public of the comment period and meeting through their mailing list and a newspaper public notice within seven days of submitting the permit modification request. A copy of the permit modification request and supporting documents must also be placed in a location accessible to the public. At the end of the public comment period, all comments received are reviewed and responded to before a final decision is made by the department.

Class 3 permit modifications typically address changes that substantially alter a facility or its operations. Class 3 modifications require the permittee to conduct the same public participation activities as a Class 2 modification. After the 60-day public comment period on the proposed modifications, the same review and public participation activities are conducted as during the initial permitting process.

There are two opportunities for public comment on Class 3 permit modifications:

- The initial 60-day comment period and public meeting held by the permittee for the proposed modification.
- The follow-up 45-day public comment period held by the department for the proposed changes to the permit.

Department-initiated permit modifications are governed by 40 CFR 270.41, as incorporated by reference in the state hazardous waste regulations. Department-initiated permit modifications are not defined by "class," like permittee-initiated permit modifications. This type of permit modification is often used to facilitate implementation of proposed final corrective action remedies at permitted facilities. The public participation activities for department-initiated permit modifications are very similar to those activities conducted during Class 3 permit modifications, with the exception of the permittee holding an advance 60-day public comment period and public meeting.



Public Participation in Corrective Action Remedy Decisions

Missouri's hazardous waste regulations require owners or operators of permitted and interim status hazardous waste management facilities to investigate and remediate releases of hazardous waste and hazardous constituents to the environment regardless of when those releases occurred. These activities, termed "corrective action," include investigating, evaluating and remediating releases to address risks to human health and the environment. Remediation includes cleanup and implementation of controls to prevent exposures to the contamination. In Missouri, corrective action activities may be administratively governed by a hazardous waste permit, corrective action order, enforcement agreement, Letter of Agreement or Remedial Action Plan.

The public has the opportunity to comment on the corrective action activities and requirements contained in draft hazardous waste permits. There are also times during the corrective action process requiring additional public participation, including proposed significant interim measures and all proposed final remedies. When corrective action is proceeding under a permit, these proposed activities are typically handled as department-initiated permit modifications and are subject to the corresponding public participation requirements described above.

There are no specific regulations requiring public participation for corrective action activities conducted under corrective action orders, enforcement agreements or Letters of Agreement. These documents typically have specific conditions in them requiring public participation, similar to that required under permits. There are specific regulations governing public participation requirements for Remedial Action Plans that differ somewhat from those for permitting. The department provides the same opportunities for public participation of proposed corrective action final remedies as required if corrective action was being conducted under a permit.

Beyond Regulatory Requirements

The Permit Section recognizes public participation is not just a formality required by the law and regulations. It routinely goes above and beyond the regulatory requirements for public participation. The regulations require that news releases are sent only on permitting activities for active hazardous waste landfills. However, news releases are sent about all hazardous waste permitting and corrective action activities regardless of the type of facility. To make it easier for the public to review documents, draft and final permits, reports and other supporting documents are available on the department's Web site at www.dnr.mo.gov/env/hwp/permits/notices.htm.

Active hazardous waste permits, orders and other regulatory agreements for Missouri's hazardous waste facilities are posted on the Web at www.dnr.mo.gov/env/hwp/permits/activepa.htm. A "redline" version of a Class 3 permit or department-initiated modifications to a permit is also posted on the Web. The redline is the original permit with the changed conditions marked and the date the change took effect. Class 1 and Class 2 permit modifications showing the permit status is listed below the redline version to update the public.

The Permits Section believes the opportunities for public participation should match the level of community interest in permitting and corrective action activities. The section routinely assesses the level of community interest and types of community concerns. The section decides which additional public participation activities to conduct. These activities vary widely and may include holding public information sessions and meetings and forming advisory groups to actively including citizens in making and implementing decisions. Employees within the section also create information sheets explaining a facility's activities, providing brief summaries of technical reports and sometimes go door-to-door to contact the public directly to discuss questions, concerns or provide information. The Permits Section firmly believes those who must live with the outcome of an environmental decision are entitled to know what is going on, have the opportunity to raise relevant concerns and the ability to impact decisions by the department.

Wood Treaters Inventory

The purpose of preserving wood is to extend the life of wood products from the damaging effects of the weather, fungi, insects and marine borers. This is especially important in the construction, railroads and utilities industries. The preservation process involves the penetration of a preservative solution, usually under pressurized applications, into the wood. The most common preservative solutions used include chromated copper arsenate, or CCA, copper napthenate, creosote and pentachlorophenol. Past mismanagement of these preservatives at some wood treating facilities has caused significant contamination of soil and groundwater. The contamination generally is caused by excess preservative from the treated wood being allowed to drip directly onto the ground. These chemicals contaminate the soil and groundwater and have the potential of being carried a considerable distance from the site.

The Superfund Section maintains an inventory of wood treaters. The list only includes sites where a wood treater has been confirmed at that location. Suspected sites not confirmed or assessed are not listed in the inventory. The Wood Treaters Inventory can be found in the *Missouri Registry Annual Report*. The Registry Annual Report is published every year. The fiscal year 2008 annual report will be available Jan. 1, 2009. It will be available at www.dnr.mo.gov/pubs/index.html#HazardousWaste. It is available as a paper copy or on CD.

As of June 30, sixty-seven sites are listed on the Wood Treaters Inventory. Of these 67 sites:

- Twenty-four are undergoing or pending some form of cleanup, monitoring or removal activities.
- Thirty-five have completed investigations.
- Five are pending evaluation.
- One has been referred to EPA Enforcement.
- One has been referred to Department of Justice enforcement review.
- One is under EPA investigation with the status unknown.

In-situ Land Farming:

A Cost Effective Remediation Technique

Previous remediation techniques for wood treatment waste included incineration of the contaminated soil or excavation and disposal at an off-site permitted facility. These techniques were very costly, which discouraged landowners from making any attempt at cleanup.

Over the past four years, the Superfund Section worked with several landowners to demonstrate the use of in-situ (in place) land farming as a cost effective alternative for remediating wood treatment waste. This method involves mixing the contaminated soil with cow, pig or horse manure or similar substances to increase microbial activity. The microbes then consume the contamination. This method has only been proven effective for pentachlorophenol and not other compounds such as creosote, CCA, etc.

Beginning in June 2004, six former wood treatment sites were selected for land farming remediation. The sites were selected based on the size, landowner inability to pay for a more costly remediation



Mings Woodtreating before cleanup.



Mixing in the soil amendment during the establishment of the land farm.

technique and the owner's willingness to cooperate with department employees during the cleanup. Costs for the project were paid through the use of Brownfields grant money from EPA.

The Mings Woodtreating site was one of the six sites chosen to use in-situ land farming. Mings operated in the 1960s and 1970s. They used pentachlorophenol as a preservative treating primarily fence posts. The site was abandoned in the late 1970s and cleanup began in November 2004. Initial levels of soil contamination ranged from 14 to greater than 1,000 parts per million. At the completion of the land farming in March 2008, the contamination concentration was 0.9 parts per million.



Mings Woodtreating after the land farm was established.

Since 2004, four of the six sites chosen for remediation through the use of land farming have achieved a cleanup level safe for any future land use. The remaining sites show significant reduction in the level of pentachlorophenol. It is anticipated they will achieve the cleanup goal this year.

The section is currently working on publishing a landowner's guide to in-situ land farming for pentachlorophenol contamination. The goal of the guide is to provide step-by-step instructions about this technique. This will allow landowners to take advantage of this cost effective remediation method.

Tanks Section

Webb City Conoco

After Webb City contacted the Tanks Section, a meeting in October was held to discuss an abandoned gas station on the historic Route 66 highway. Specific concerns at the gas station included tank closure and soil contamination, both of which will be addressed during the project. The next step includes sending bids, selecting contractors and developing a timeline for field work and tank closure.



Development plans for the property include a Route 66 memorabilia museum in the former garage bays at the station, restoration of the office area to house the city's Economic Development Coordinator and reinstatement of the restrooms for use during functions, such as historic car shows and a fall festival. Webb City was named a "Dream" city and will receive funding to revitalize the downtown area. The department's Brownfields/Voluntary Cleanup Program is also providing some funding and resources to conduct assessments to determine if there is contamination remaining at several properties. Plans for these areas include a potential Route 66 entrance park to Webb City.



Route 66 was constructed in the 1920s to take motorists from Chicago to Los Angeles. For over four decades, Route 66 operated as one of the country's main arteries of transportation across the United States. This highway entered Missouri over the Chain of Rocks Bridge north of St. Louis and entered Kansas in the Galena area. This highway was decommissioned in the 1970s with the building of Interstate 44.

As the interstate took the place of the original highway, several businesses, including gas stations, closed and were abandoned. A number of abandoned underground storage tanks were never properly addressed and may have leaked gasoline into the soil and groundwater. The possible contamination may pose a current or future risk to human health or the environment. This discourages redevelopment and reuse of these properties.

Federal Rulemaking Group

In March 2008, EPA announced it is going to open the Code of Federal Regulations, or CFR, Parts 280 and possibly parts of 281 for public comment. These regulations pertain to underground storage tanks. EPA will be looking at several items in this rulemaking:

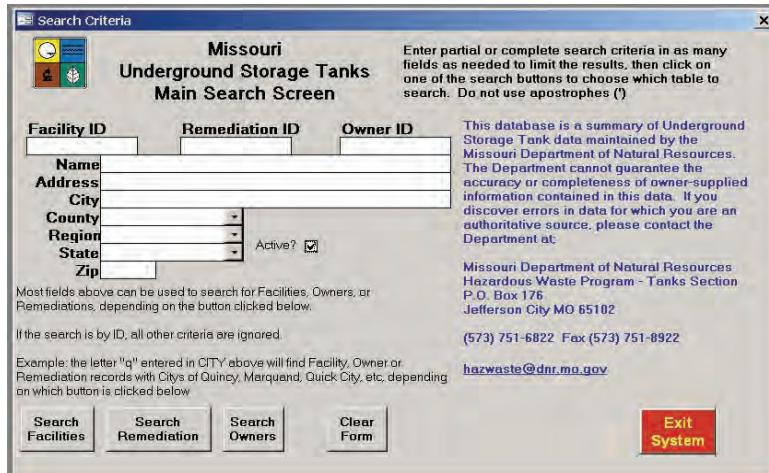
1. Additions to the federal law to include energy bill legislation (such as fuel delivery prohibition, secondary containment and operator training).
2. Deferrals - several tanks were deferred from UST law. (Should they continue to be deferred?)
3. Technical corrections and additions (such as spill buckets, leak detection methods, etc.).
4. Deregulation (Are there parts of the law that are outdated and unnecessary?)

Ken Koon, Tanks Section Chief, was chosen to participate on the Association of State and Territorial Solid Waste Management Officials, or ASTSWMO, Federal Regulations Revisions Workgroup. This workgroup has polled state tank programs and regulators about the above four areas and is providing comments to EPA on rule changes and updates.

EPA has also started discussions with tribal officials, as well as many other underground storage tank stakeholders (such as industry, environmental organizations and federal agencies) and is actively eliciting its thoughts on the department's plans.

Tanks Database Rewrite

The Underground Storage Tank Database recently was upgraded in order to streamline underground storage tank registration processes and make data more accessible to the public and other department employees. The database is used to track the registration, tank closure, site remediation, inspections, enforcement and ownership of underground storage tanks. It also generates invoices and status reports for department employees, EPA and the public. The upgrade improved efficiency in the section and aided in the improvement of the accuracy, accountability and accessibility of information management.



Search Criteria

Missouri
Underground Storage Tanks
Main Search Screen

Enter partial or complete search criteria in as many fields as needed to limit the results, then click on one of the search buttons to choose which table to search. Do not use apostrophes (').

This database is a summary of Underground Storage Tank data maintained by the Missouri Department of Natural Resources. The Department cannot guarantee the accuracy or completeness of owner-supplied information contained in this data. If you discover errors in data for which you are an authoritative source, please contact the Department at:

Missouri Department of Natural Resources
Hazardous Waste Program - Tanks Section
P.O. Box 176
Jefferson City MO 65102
(573) 751-6822 Fax (573) 751-8922
hazwaste@dnr.mo.gov

Facility ID Remediation ID Owner ID

Name Address City County Region State Zip Active?

Most fields above can be used to search for Facilities, Owners, or Remediations, depending on the button clicked below.

If the search is by ID, all other criteria are ignored.

Example: the letter "q" entered in CITY above will find Facility, Owner or Remediation records with Cities of Quincy, Marquand, Quick City, etc. depending on which button is clicked below

Search Facilities Search Remediation Search Owners Clear Form Exit System

The database is used by department employees, including project managers and tank inspectors, land and building owners, consultants and the public for a multitude of purposes. The public can use the database to review locational data about tank sites, check the status of a closure or remediation project and review the facility owner registered with the department. There are thousands of records that can be sorted by location, name of owner, identification codes or other criteria.

This enhancement included a conversion of the backend of the database from Microsoft® Access® to DB2. This conversion is one of the preliminary steps toward a real-time database accessible through the Internet. Currently, a biweekly updated copy of the Underground Storage Tank Database is available on the department's Web site at www.dnr.mo.gov/env/hwp/downloads/hwpet.htm.

Petroleum Storage Tanks Regulation June 2008

Some activities are recalculated each month for all previous months to reflect items added or edited after the end of the previous reporting period.